

**STATE OF NEW HAMPSHIRE  
INTER-DEPARTMENT COMMUNICATION**

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**Offices**  
Dept of Environmental Services  
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**SUBJECT** Report from Classification Subcommittee

**TO** Water Quality Standards Advisory Committee

The subcommittee tasked with updating the classification system for New Hampshire's water quality standards met on January 31, 2011. The participants were: Don Kretchmer (AECOM), Mark Hutchins (Normandeau Assoc.), Mike Metcalf (Underwood Engineers), Dave Brennan (Concord Water Dept.), Larry Morse (GZA), Chris Albert (Jones & Beach), Paul Currier (DES), Jody Connor (DES), Sandy Crystall (DES), Ted Walsh (DES), Ken Edwardson (DES), and Phil Trowbridge (DES).

Paul Currier provided a summary of the work to date on designated uses by the WQSAC for HB 1305. Then, the subcommittee reviewed a table containing the designated uses for all the New England states (Table 1) to identify obvious options for new designated uses for New Hampshire. The group also reviewed wetland habitat designated uses from California and Ohio.

Initially, the group discussed whether it was better to add new designated uses or to just change the assessment methods in DES guidance. The conclusion was that new designated uses should be added in a limited manner. The advantages of adding designated uses were: 1) public process; 2) enhanced protection because designated by the Legislature; and 3) clarity for applicants. The major disadvantage of adding new uses is the difficulty of making changes once approved by the Legislature. Therefore, new, more specific uses should be added where they can be clearly defined (e.g., existing drinking water supplies). More general uses and DES guidance should be used where our understanding is still evolving (e.g., wetland aquatic life).

Table 2 contains the preliminary recommendations from the subcommittee for designated uses. Key topics discussed are summarized below.

- Recreation: No new designated uses needed but recommend that the names of the uses be changed to be like Vermont's to be understandable to the public.
- Public Water Supplies: Recommend adding a new designated use for existing public drinking water supplies.
- Aquatic Life: Recommend adding a Cold Water Fishery designated use. This use would be limited to a subset of the water bodies that would be carefully identified by a team of stakeholders. These water bodies would have more stringent dissolved oxygen and temperature criteria. The group also discussed adding a Warm Water Fishery and a Transitional Water Fishery, but these water bodies for these uses would be hard to define accurately.
- Agriculture/Industry: Recommend adding a designated use for Agriculture.

- Navigation: The group did not recommend adding a use for Navigation. This use was interpreted to mean navigation by large ships. The only place where this use would be relevant would be the Piscataqua River.
- Fish Consumption: No changes.
- Shellfish Consumption: No changes. Other states have more detailed uses related to whether harvesting is restricted or not. The DES Shellfish Program classifications related to restricted harvesting change frequently. It would complicate matters to need legislative approval for all of these changes.
- Other: The group discussed the pros/cons of an Aesthetic designated use. This use could be helpful if applied in a limited manner for scenic areas. For example, it may be appropriate for waterfalls that require a minimum flow for aesthetics. Massachusetts and Vermont use aesthetics document violations of standards against slicks, odors, floating solids, and invasive species outbreaks. DES currently captures these violations in the secondary contact recreation and aquatic life designated uses, respectively. Without a good example to follow from another state, it is not recommended that Aesthetics be added as a designated use. The subcommittee recommended adding Geomorphic Integrity as a designated use. This use would be relevant suitable physical conditions in surface waters, adjacent shorelands, and riparian zones to provide floodwater attenuation and storage and maintain natural processes of erosion and sedimentation.
- Wetlands: Some, but not all, of the designated uses for surface waters will be applicable to wetlands – and only to some wetland types. For example, the Boating designated use would be applicable to marshes but not vernal pools. The group recommended creating a new “Wetland Habitat” designated use to make it clear that aquatic life use support in wetlands will be evaluated differently than in surface waters. More work is needed to define the process by which different wetland types will be evaluated.

#### Next steps

- Review list of potential designated uses with WQSAC.
- Develop definitions for new designated uses.
- Determine which designated uses apply to wetlands.
- Decide whether a Class A/Class B type system is still necessary.

**Table 1: Designated Uses in New England States**

Use Type	New Hampshire	Connecticut	Maine	Massachusetts	Rhode Island	Vermont
Recreation*	Primary Contact Recreation	Recreation	Primary Contact Recreation	Primary Contact Recreation	Primary Contact Recreation	Swimming And Other Primary Contact Recreation
	Secondary Contact Recreation		Secondary Contact Recreation	Secondary Contact Recreation	Secondary Contact Recreation	Boating, Fishing, And Other Recreational Uses
			Fishing			
Public Water Supplies*	Drinking Water Supply After Adequate Treatment	Existing Or Proposed Drinking Water	Drinking Water Supply After Disinfection	Public Water Supply	Public Drinking Water Supply	Public Water Supply
		Potential Drinking Water Supplies	Drinking Water Supply After Treatment			
Protection and Propagation of Fish, Shellfish, and Wildlife*	Aquatic Life	Habitat For Fish, Other Aquatic Life And Wildlife	Fish And Other Aquatic Life	Fish, Other Aquatic Life And Wildlife	Fish And Wildlife Habitat	Cold Water Fishery
	Wildlife	Habitat For Marine Fish, Other Aquatic Life And Wildlife	Fish And Other Estuarine And Marine Life			Warm Water Fishery
			Wildlife			Aquatic Biota, Wildlife, And Aquatic Habitat
Agriculture and Industry*		Agriculture		Agriculture		Irrigation Of Crops And Other Agricultural Uses
		Industrial Supply	Industrial Process And Cooling Water Supply	Industrial Cooling		
Navigation*		Navigation	Navigation			
Fish Consumption	Fish Consumption	Fish Consumption	Fish Consumption	Fish Consumption	Fish Consumption	Fish Consumption
Shellfish Consumption	Shellfish Consumption	Shellfish Harvesting For Direct Consumption Where Authorized	Propagation And Harvesting Of Shellfish	Shellfish Harvesting	Shellfish Consumption	
		Commercial Shellfish Harvesting Where Authorized	Propagation And Restricted Harvesting Of Shellfish		Shellfish Controlled Relay And Depuration	
Other	Geomorphic Integrity (proposed)		Hydroelectric Power Generation	Outstanding Resource Waters		
			Aquaculture	Aesthetic		Aesthetic

\*Uses listed in Section 303(c) of the Clean Water Act

<http://epw.senate.gov/water.pdf>

**Table 2. Current and Proposed Designated Uses for New Hampshire**

Use Type	Current Designated Uses	Proposed Designated Uses	
	Surface Waters and Wetlands	Surface Waters	Wetlands
Recreation*	Primary Contact Recreation	Swimming and Other Primary Contact Recreation (Editorial change to clarify intent)	Swimming and Other Primary Contact Recreation (only applicable to some wetland types, e.g., marshes)
	Secondary Contact Recreation	Boating and Other Secondary Contact Recreational Uses (Editorial change to clarify intent)	Boating and Other Secondary Contact Recreational Uses (only applicable to some wetland types, e.g., marshes)
Public Water Supplies*	Drinking Water Supply After Adequate Treatment	Existing Drinking Water Supply	
		Potential Drinking Water Supply After Adequate Treatment	
Protection and Propagation of Fish, Shellfish, and Wildlife*	Aquatic Life	Aquatic Life	Wetland Habitat** (Additional work is needed to define this use and assessment methods.)
	Wildlife	Wildlife	
		Cold Water Fishery (This use will be assigned to a subset of rivers and lakes)	
Agriculture and Industry*		Agriculture	Agriculture (only applicable to some wetland types, e.g., wet meadow, farm ponds, etc.)
Navigation*			
Fish Consumption	Fish Consumption	Fish Consumption	Fish Consumption
Shellfish Consumption	Shellfish Consumption	Shellfish Consumption	Shellfish Consumption (only applicable to some wetland types, e.g., tidal flats)
Other		Geomorphic Integrity	

New designated uses shown in **red text**.

\*Use types listed in Section 303(c) of the Clean Water Act

\*\* Example definition of "wetland habitat" use from California: "Uses of water that support natural and man-made wetland ecosystems, including, but not limited to, preservation or enhancement of unique wetland functions, vegetation, fish, shellfish, invertebrates, insects, and wildlife habitat."